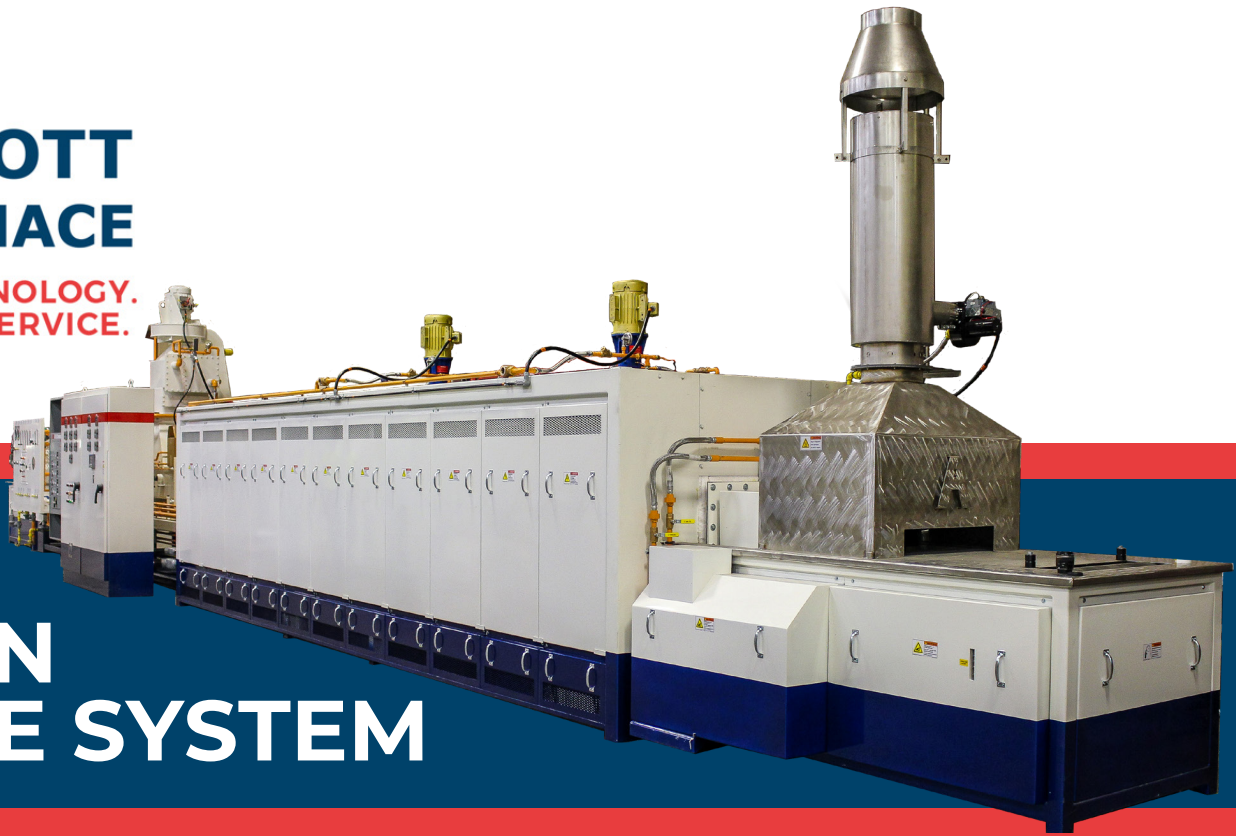




LEAD WITH TECHNOLOGY. SUCCEED WITH SERVICE.



VULCAN DELUBE SYSTEM

Lubricant removal continues to be one of the most challenging steps in the production of powder metal components. As compaction technology continues to push green densities to higher levels, the removal of the lubricant from the compact becomes even more difficult.

Existing technology is very sensitive to product size, belt loading, and lubricant content. Weight loss studies have demonstrated that The Vulcan Delube System is built with enough flexibility to allow the atmosphere and thermal profile to be adjusted to prevent the oxidation of light loads and small parts; as well as the ability to remove large amounts of lubricant from heavy loads and large products.

1/2" Diameter Slug at 560 F

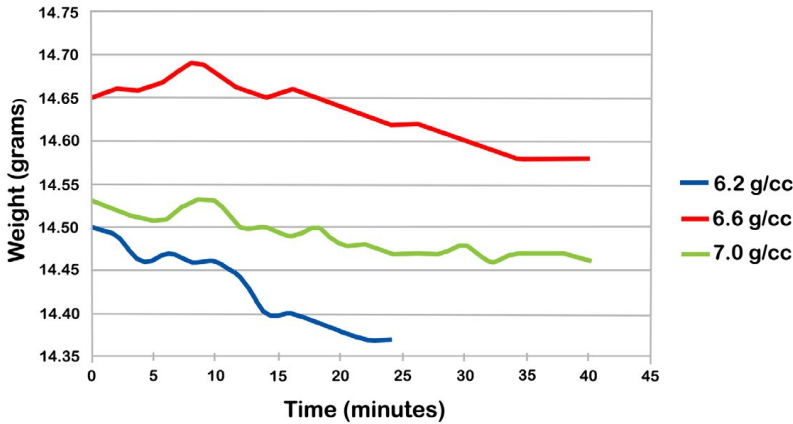


FIGURE 1. WEIGHT LOSS VS GREEN DENSITY

The new Vulcan Delube System, developed by Abbott Furnace Company, addresses this need. Through precise atmosphere and temperature control, the powder metal compact is placed in the optimal environment for the extraction of the lubricants.

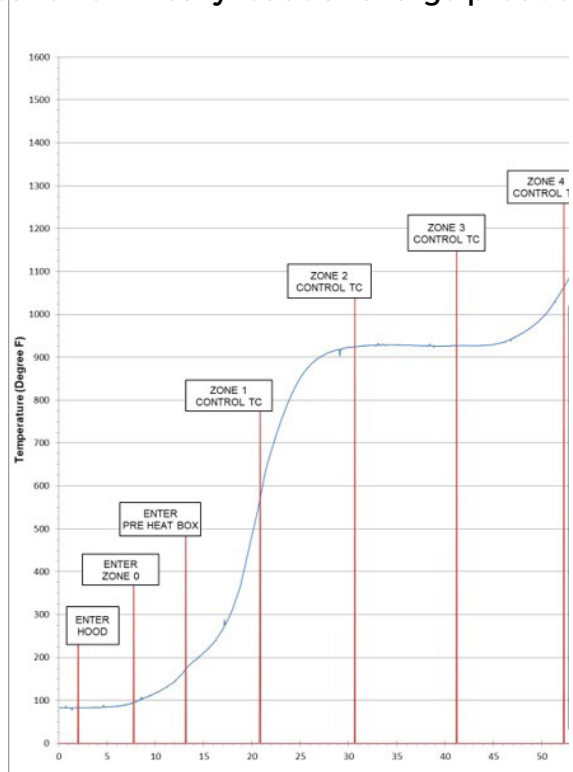


FIGURE 2. LUBRICANT REMOVAL PROCESS PROFILE